



2022

# FACULTY OF APPLIED SCIENCES

*Undergraduate Programmes*

The **Faculty of Applied Sciences ('FOAS')** currently offers programmes at Diploma, Bachelor, Master and PhD's levels. The faculty has a range of science laboratories and facilities to support the programmes. Apart from running academic programmes, the faculty is active in research activities and has close relationships with the industry via industry-academia collaborative projects.



## What Our Graduates Say



TAN JIE YI

*As I aim to bring positive impact to people through sports, TAR UC has helped me get closer to my ambition as studying sport science at TAR UC has taught me the approach and methods that I can apply. Meeting others with similar interest like mine is an added bonus. Most importantly, I have lecturers who are genuinely concerned for my future and they willingly share their knowledge and experiences for my benefit. The culture at TAR UC emphasises experience and exposure beyond education which includes active participation in sports/co-curricular activities and society/events has helped me move forward in my journey to become a better version of myself as an athlete, a coach and a friend. Such support and motivation have helped me pursue my sports career in between my studies by participating in Asian Games in 2018 and Sea Games in 2019.*

.....  
Bachelor of Science (Hons) in Sports and Exercise Science - TAR UC 2021



YEOH ZI YING

*As a graduate, I can testify that choosing to study at TAR UC was the best decision I had ever made. The pleasant study environment with excellent amenities were very helpful in my learning journey to acquire valuable knowledge and develop practical skills. Besides, the lecturers are helpful and are always available to guide students. I am proud to be a TARCian and I will always appreciate every moment I have spent with my lecturers and classmates at TAR UC.*

.....  
Bachelor of Science (Hons) in Analytical Chemistry - TAR UC 2021



TAN PANG YU

*I am very blessed to be able to pursue the programme of my choice and to be awarded a merit scholarship to pursue the programme is an added bonus. My learning experience has been interesting and rewarding as I have gained relevant knowledge and practical skills in the various areas under food science. Besides the comprehensive learning environment on campus, having helpful and enthusiastic friends and knowledgeable and supportive lecturers were among the important factors for me to successfully complete my studies at TAR UC. I am confident that the knowledge and exposure I have gained as a TAR UC student will be the foundation of success in my career and life.*

.....  
Bachelor of Science (Hons) in Food Science - TAR UC 2021

*Why study at the*  
**FACULTY OF  
APPLIED  
SCIENCES**

**Dedicated** and **qualified academic staff** who are committed to their role in providing education to students.

A variety of programmes that **provide differentiation** to suit the diverse interest and needs of students.

Close link with **industry partners** and **scientific institutions**.

**Holistic education** that instils strong technical and scientific skills as well as personal and character development.

Industrial training which provides students with **real-world experience** and **enhances employment prospects**.

Wide range of **alternative progression routes** for further studies, both locally as well as overseas.

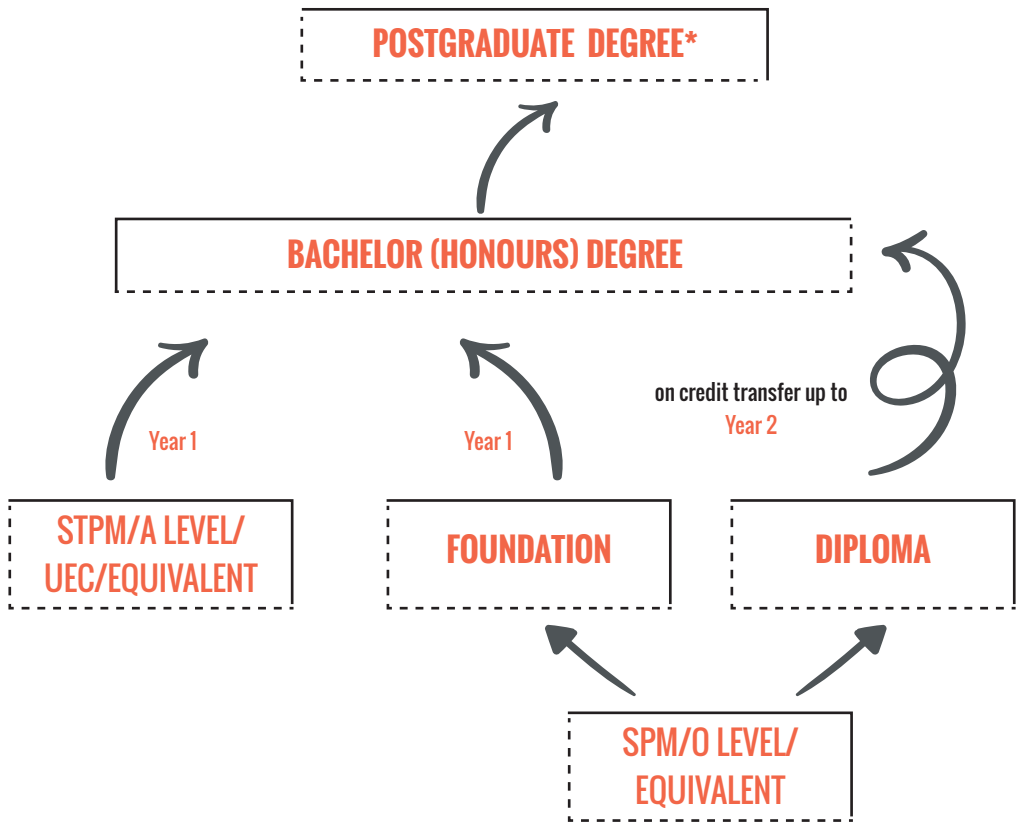
The laboratories are well-equipped with **modern facilities** and **state-of-the-art equipments**.

The Faculty of Applied Sciences is **ISO 9001:2015 Certified**



CERTIFIED TO ISO 9001:2015  
CERT. NO.: MY-QMS 02847

# GENERAL PROGRESSION ROUTE



\* The Faculty of Applied Sciences offers the following postgraduate programmes:

- **Master of Science**  
(R/440/7/0027)(04/26)(MQA/FA81115)
- **Master of Science (Life Science)**  
(R/421/7/0059)(05/26)(MQA/FA 8464)
- **Master of Science (Food Science)**  
(N/541/7/0036)(11/25)(MQA/PA10036)
- **Master of Science in Sport Science**  
(N/813/7/0021)(04/26)(MQA/PA10035)
- **Doctor of Philosophy (Life Sciences)**  
(N/421/8/0060)(10/25)(MQA/PA10038)
- **Doctor of Philosophy (Physical Science)**  
(N/440/8/0051)(03/26)(MQA/PA10037)
- **Doctor of Philosophy (Sports Science)**  
(N/813/8/0021)(03/26)(MQA/PA10731)
- **Doctor of Philosophy (Food Science)**  
(N/541/8/0045)(08/27)(MQA/PA13794)

2022 INTAKES	JANUARY/FEBRUARY	COMMENCEMENT DATE:
	<ul style="list-style-type: none"> <li>• Selected Bachelor Degree/ Diploma programmes</li> <li>• Foundation</li> </ul>	<ul style="list-style-type: none"> <li>17/01/2022</li> <li>07/02/2022</li> </ul>
2022 INTAKES	JUNE	COMMENCEMENT DATE:
	<ul style="list-style-type: none"> <li>• Foundation</li> <li>• Bachelor Degree &amp; Diploma</li> </ul>	<ul style="list-style-type: none"> <li>24/06/2022</li> <li>27/06/2022</li> </ul>
2022 INTAKES	OCTOBER/NOVEMBER	COMMENCEMENT DATE:
	<ul style="list-style-type: none"> <li>• Foundation</li> <li>• Selected Bachelor Degree/ Diploma programmes</li> </ul>	<ul style="list-style-type: none"> <li>14/10/2022</li> <li>18/11/2022</li> </ul>

# PROGRAMMES OFFERED

## Foundation (1 Year)

## Bachelor Degree (3 Years)

➤ Foundation in Science  
(Track A) **KL**

➤ Bachelor of Science (Honours)  
in Applied Physics (Instrumentation) **KL**

➤ Foundation in Science  
(Track B) **KL**

➤ Bachelor of Science (Honours)  
in Bioscience with Chemistry **KL**

➤ Foundation in Science  
(Track A/Track B) **KL**

➤ Bachelor of Science (Honours) in  
Sports and Exercise Science **KL**

➤ Bachelor of Science (Honours)  
in Analytical Chemistry **KL**

➤ Bachelor of Science (Honours) in  
Food Science **KL**



# PROGRAMMES OFFERED

Diploma (2 Years)	on credit transfer up to Year 2 →	Bachelor Degree (3 Years)
➤ Diploma in Science <b>KL</b>	➤	Bachelor of Science (Honours) in Analytical Chemistry <b>KL</b> ➤ Bachelor of Science (Honours) in Bioscience with Chemistry <b>KL</b>
➤ Diploma in Food Science <b>KL</b>	➤	Bachelor of Science (Honours) in Food Science <b>KL</b>
➤ Diploma in Sport and Exercise Science <b>KL</b>	➤	Bachelor of Science (Honours) in Sports and Exercise Science <b>KL</b>
➤ -	-	Bachelor of Science (Honours) in Applied Physics (Instrumentation) <b>KL</b>
➤ Diploma in Aquaculture <b>JH</b>	-	-



# ANALYTICAL CHEMISTRY

Analytical chemistry is the science of obtaining, processing, and communicating information about the composition and structure of natural and artificial materials. That is to say, analytical chemistry is the combination of art and science of determining what matter is (identification) and how much of it (quantification) exists. Analytical chemistry also focuses on improvements in experimental design, chemometrics, and the creation of new measurement tools to provide better chemical information. Analytical chemistry has applications in forensics, bioanalysis, clinical analysis, environmental analysis and materials analysis. As a scientific field which has such great diversity in its application, students trained in this programme will surely be in great demand in chemical related industries.

The Analytical Chemistry programme prepares graduates with the foundation to use their knowledge of chemistry, instrumentation, computer, and statistics to solve problems in almost all areas of chemistry and for all kinds of industries. For example, their measurements are used to assure the safety and quality of food, pharmaceuticals, and water; to assure compliance with environmental and other regulations; to support the legal process; to help physicians diagnose diseases; and to provide measurements and documentation essential to trade and commerce.

This programme equips students with technical knowledge of analytical chemistry. The students will also be made aware of international standards that bound them to the society and industry. They will have an opportunity to work with industry through their internship and to carry out a real-life research project on analytical chemistry. All such training will add value to their qualification and later to their employment opportunities.

This programme is endorsed by Institut Kimia Malaysia (IKM). Graduates of this programme can join IKM as a member and hence recognised as a 'Registered Chemist' in Malaysia.

## Career Prospects

- Research Scientists
- Analytical Chemists in commercial labs
- Quality Control/Assurance Chemists
- Laboratory Supervisors
- Product Chemists (Analytical Instrumentation)
- Occupational Health and Safety Specialists
- Environmental Impact Assessment (EIA) Officers (Chemistry aspect)
- Product Development Chemists (pharmaceutical area, food industry, cosmetic industry, polymer industry, etc)
- Product Specialists
- Atmospheric Chemists
- Nanotoxicologist
- Sustainability Manager
- Sport Scientist
- Policy Researcher

## Level & Campus

Bachelor of Science (Honours) in Analytical Chemistry - 3 years

- **KL** (R/442/6/0004)(09/23)(MQA/FA3924)



# BIOSCIENCE WITH CHEMISTRY

07

PROGRAMMES

This programme equips students with an in-depth understanding of the core principles and methodologies underlying current biotechnological research, thus, able to pursue careers in bioscience and biotechnology either in industry or academic research. In this programme, students are able to develop the transferable qualities and skills required for employment or research in the biosciences sector. Bioscience students are not only trained in laboratory and research skills but equip with the relevant business and entrepreneurial skills. Students will have an opportunity to work with industry through their internship and to carry out a real-life research project in the bioscience area. All such training will add value to their qualification and benefit their employment.

## Career Prospects

- Microbiologists
- Life Sciences Product Specialists
- Research Scientists
- Quality Control/Assurance Executives
- Chemists
- Marketing & Sales Executives
- Life Science Technologists
- Biochemists
- Biotechnologists
- Occupational Health & Safety Specialists
- Environmentalists

## Level & Campus

Bachelor of Science (Honours) in Bioscience with Chemistry - 3 years

- **KL** (R/421/6/0017)(10/23)(MQA/FA3921)



■ KL - Kuala Lumpur Main Campus



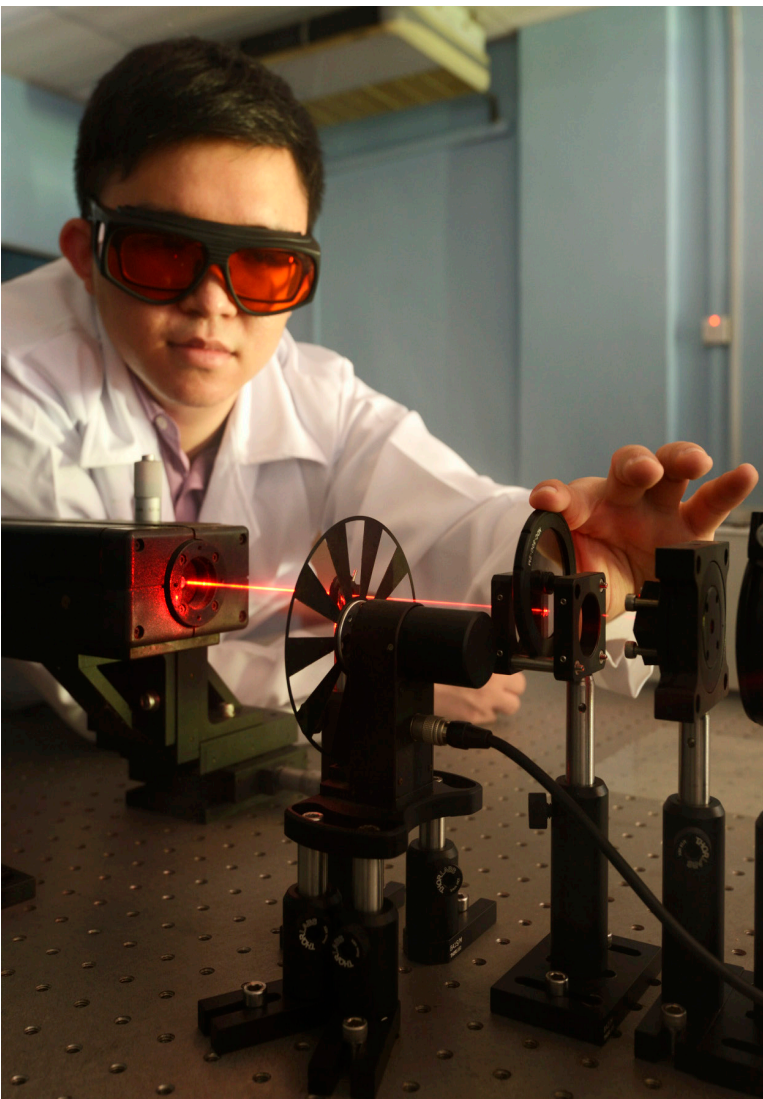
# APPLIED PHYSICS (INSTRUMENTATION)

This programme equips students with the knowledge in physics and instrumentations and operational technical skill, which would lay the foundation for applications in various industrial areas. Students will go through training in the applications of physics and instrumentations, computer simulations, designing virtual instruments using Labview and handling advanced equipment such as thermal evaporator and atomic force microscope. This programme would lay the foundation for future applied physics innovators in material sciences, instrumentations, biomedical and healthcare equipment designers.

Academically, this programme has adequate coverage in its core physics contents, and graduates are well prepared to continue their post-graduate studies in physics, locally or overseas. Additionally, they can also pursue post-graduate studies in cross-disciplinary fields such as nanoscience, biophysics, chemical physics, medical physics and geophysics.

Industries employing physicists are varied:

- Aerospace & Defence
- Education
- Energy
- Engineering
- Instrumentation
- Manufacturing
- Oil and Gas
- Science & Telecommunications



## Career Prospects

- Research & Development personnel
- Semiconductor Test Engineers
- Semiconductor Design Engineers
- Instrumentation Engineers
- Biomedical Devices Engineers

## Level & Campus

Bachelor of Science (Honours) in Applied Physics (Instrumentation) - 3 years

- **KL** [R/545/6/0028](10/23)(MQA/FA3922)

# CHEMISTRY AND BIOLOGY

The programme syllabus covers a broad spectrum of topics which include environmental chemistry & technology, electrochemistry, industrial organic chemistry, thermodynamics, stereochemistry, material science, biotechnology, biochemistry, genetics, physiology, microbiology and immunology. Trainings in various advanced techniques and instrumentation such as FT-IR, UV-VIS spectroscopy, centrifugation, and serological methods are also included.

## Career Prospects

- Clinical Lab Technologists
- Laboratory Supervisors
- Production Technicians
- Quality Controllers
- Product Specialists
- Research Assistants
- Quality Assurance Technologists
- Sales Executives

## Level & Campus

Diploma in Science - 2 years

- **KL** (R/421/4/0015)(08/23)(AA0106)



# FOOD SCIENCE

This programme applies the pure science subjects, such as chemistry, biochemistry, nutrition, biology and microbiology to the study of the nature, properties and composition of foods. It also covers the changes which they undergo during storage and processing including transformation into safe and quality food products for consumers. Graduates will be given exposures to areas in functional foods leading to healthy and vibrant lifestyle. In addition, this programme prepares graduates with advanced laboratory skills and current techniques in food science including those related to safety practices and standards, leading to the professionalism in the area of food science.

Graduates of this programme, therefore, will have developed a range of skills which will enable them to occupy production and managerial positions in food and food-related industries, consulting laboratories, government organisations and regulatory bodies. This programme also aims to prepare technically competent graduates to venture into entrepreneurship and new product developments in food industry.

## Career Prospects

- Food Technologists
- Food Chemists
- QC/QA Executives
- Food Product Development Specialists
- Food Product Specialists
- Nutrition Executives
- Food Microbiologists
- Food Researchers
- Food Service Executives
- Industrial/Retail Buyers
- Marketing and Sales Executives

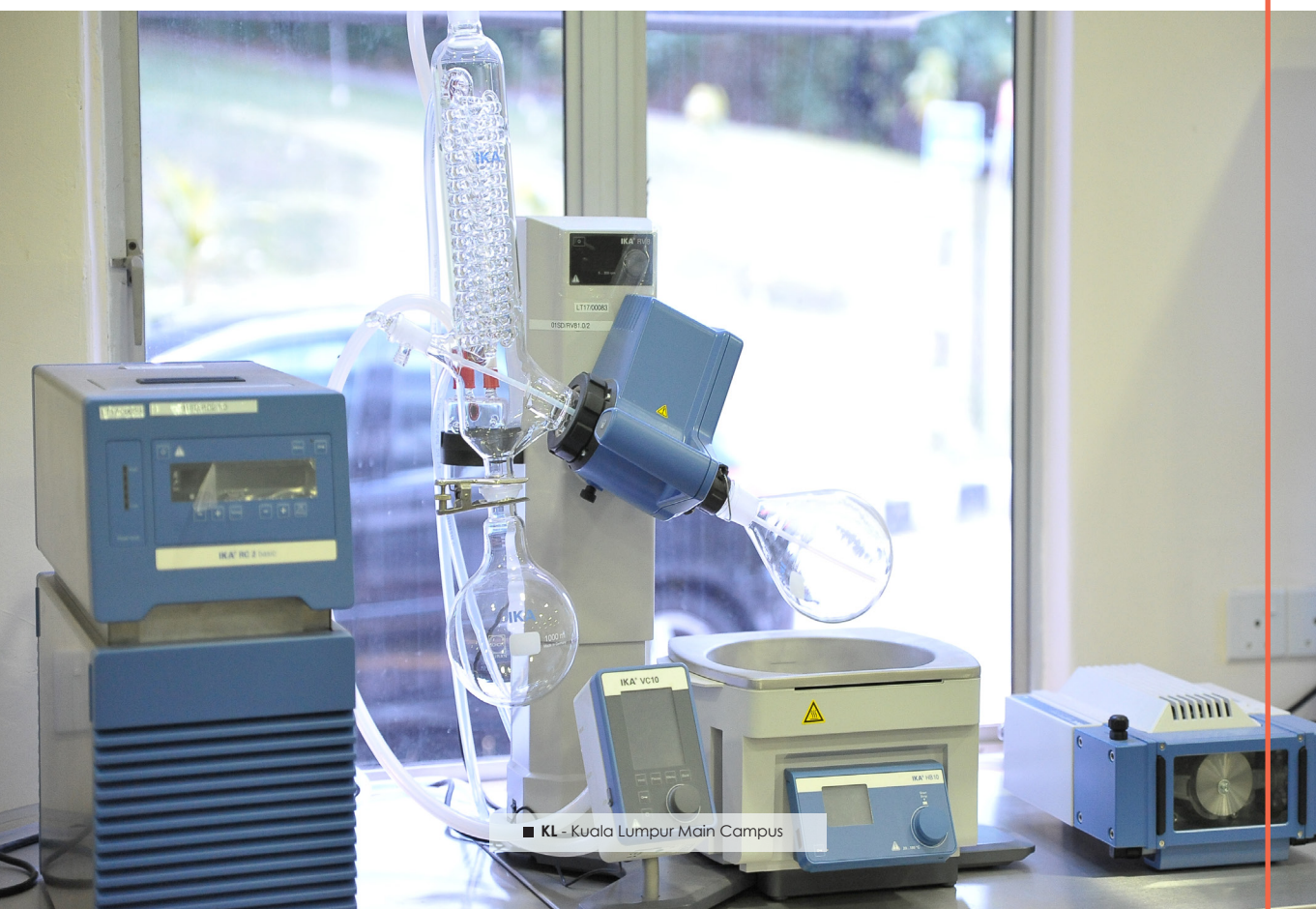
## Level & Campus

Bachelor of Science (Honours) in Food Science - 3 years

- **KL** (R/541/6/0019)(10/23)(MQA/FA3923)

Diploma in Food Science - 2 years

- **KL** (R/541/4/0021)(06/24)(MQA/FA1070)



# SPORTS AND EXERCISE SCIENCE

The Sports and Exercise Science programme provides the basis for understanding of academic contents related to sport and exercise settings. The programme is based on the application of scientific principles and interdisciplinary approaches. Students will be equipped with both theoretical and practical knowledge. In order to provide holistic theoretical base, students are exposed to exercise physiology, motor behavior, sport and exercise psychology, sport sociology, biomechanics, sport coaching, sport nutrition, sport for special population, health and wellness, research methods, testing and measurement, as well as sport management, marketing and entrepreneurship. The students' practical skills are enhanced through practical approaches which are incorporated into some of the subjects, the inclusion of numerous sport skills which emphasised on the practical aspects will also learned by students.

This programme is relevant in the current development as the market for sport, exercise and recreation is expanding in view of increasing leisure time, rising income and greater awareness of the benefits of sport, exercise and recreation. The expanding market provides increasing opportunities for employment in various sport, exercise and recreation organisations. In addition, the internship programme provides an additional edge to the students in seeking employment in the chosen sector.

## Career Prospects

- Sport Scientists
- Sport Therapists
- Strength and Conditioning Coaches
- Sports Coaches
- Sport Physiologists
- Sport Biomechanists
- Sport and Exercise Psychologists
- Health Promotion Specialists
- Sports Development Officers
- Sport Administrators
- Health & Lifestyle Consultants
- Physical Education Teachers
- Event Management Executives
- Fitness Trainers
- Sport Entrepreneurs
- Personal Trainers

## Level & Campus

Bachelor of Science (Honours) in  
Sports and Exercise Science - 3 years

- **KL** (R/813/6/0022)(10/23)(MQA/FA3920)

Diploma in Sport and Exercise  
Science - 2 years

- **KL** (R/813/4/0021)(08/23)(AA0116)



# AQUACULTURE

This programme provides students with the scientific knowledge and skills in aquaculture and forms a link for those who wish to embark on a career in aquaculture industries. The programme covers a wide range of topics in aquaculture setup, water quality, system preparation, feed and nutrition, seed production and nursery, harvesting, aquaponics etc.

This programme also offers hands-on practicals, fieldwork, industrial training. The programme prepares graduates with aquaculture skills and techniques, as well as analytical skills in laboratories, leading to the professionalism in the area of aquaculture. Students will also be taught the fundamental of business and entrepreneurship to help them venture into various aquaculture industries.

## Career Prospects

- Sales & Technical
- Hatchery Technicians
- Farm Technicians
- Laboratory Technicians

## Level & Campus

Diploma in Aquaculture - 2 years

- **JH** (R/624/4/0002)[04/26](MQA/FA7567)



# BACHELOR DEGREE ENTRY REQUIREMENTS

<b>Bachelor of Science (Honours) in Bioscience with Chemistry</b>	<b>STPM</b>	<b>A Level</b>	<b>UEC</b>	<b>Other IHL</b>	<b>TAR UC</b>
	Grade C in Biology and Chemistry	Grade D in Biology and Chemistry	Grade B in 5 relevant subjects which must include Biology and Chemistry	Relevant Foundation/ Diploma accredited by MQA	<ul style="list-style-type: none"> <li>Foundation in Science (Track B)</li> <li>OR</li> <li>Diploma in Science [formerly known as Diploma in Science (Chemistry and Biology)]</li> </ul>
<p><b>AND</b></p> <p><b>SPM Pass/O Level Grade E (Pass) in Mathematics<sup>##</sup> / UEC Grade C in one mathematics subject<sup>##</sup></b></p> <p><b>AND</b></p> <p><b>SPM Pass/O Level Grade E (Pass)/UEC Grade C in English Language<sup>**</sup></b></p>					
<b>Bachelor of Science (Honours) in Analytical Chemistry</b>	<b>STPM</b>	<b>A Level</b>	<b>UEC</b>	<b>Other IHL</b>	<b>TAR UC</b>
	Grade C in 2 relevant subjects which must include Chemistry	Grade D in 2 relevant subjects which must include Chemistry	Grade B in 5 relevant subjects which must include Chemistry	Relevant Foundation/ Diploma accredited by MQA	<ul style="list-style-type: none"> <li>Foundation in Science (Track A / Track B)</li> <li>OR</li> <li>Diploma in Science [formerly known as Diploma in Science (Chemistry and Biology)]</li> </ul>
<p><b>AND</b></p> <p><b>SPM Pass/O Level Grade E (Pass) in Mathematics<sup>##</sup> / UEC Grade C in one mathematics subject<sup>##</sup></b></p> <p><b>AND</b></p> <p><b>SPM Pass/O Level Grade E (Pass)/UEC Grade C in English Language<sup>**</sup></b></p>					
<b>Bachelor of Science (Honours) in Applied Physics (Instrumentation)</b>	<b>STPM</b>	<b>A Level</b>	<b>UEC</b>	<b>Other IHL</b>	<b>TAR UC</b>
	Grade C in 2 relevant subjects which must include Physics	Grade D in 2 relevant subjects which must include Physics	Grade B in 5 relevant subjects which must include Physics	Relevant Foundation/ Diploma accredited by MQA	Foundation in Science (Track A)
<p><b>AND</b></p> <p><b>SPM Pass/O Level Grade E (Pass) in Mathematics<sup>##</sup> / UEC Grade C in one mathematics subject<sup>##</sup></b></p> <p><b>AND</b></p> <p><b>SPM Pass/O Level Grade E (Pass)/UEC Grade C in English Language<sup>**</sup></b></p>					

<sup>\*\*</sup> Grade C and above in AELE0364 English Language conducted by TAR UC is accepted as having fulfilled the English Language requirement for applicants who fail English Language at SPM/O Level/UEC.

<sup>##</sup> Grade C and above in AMMS0104 General Mathematics conducted by TAR UC is accepted as having fulfilled the Mathematics requirement for applicants who fail the required Mathematics subject at SPM/O Level/UEC.

Note:

- Students without a credit in SPM Bahasa Melayu are required to pass Bahasa Kebangsaan A before the award of Bachelor Degree.
- TAR UC Diploma will be accepted on credit transfer into Bachelor Degree programmes.
- Equivalent qualifications/qualifications from other Institution of Higher Learning (IHL) will be considered on a case-by-case basis.
- Subject to the Ministry of Higher Education latest requirements.

# BACHELOR DEGREE ENTRY REQUIREMENTS

	STPM	A Level	UEC	Other IHL	TAR UC
<b>Bachelor of Science (Honours) in Sports and Exercise Science</b>	Grade C in 2 relevant subjects	Grade D in 2 relevant subjects	Grade B in 5 relevant subjects	Relevant Foundation/ Diploma accredited by MQA	<ul style="list-style-type: none"> <li>Foundation in Science (Track A/ Track B)</li> </ul>
	<p><b>AND</b>  <b>SPM Pass/O Level Grade E (Pass) in Mathematics<sup>##</sup> /  UEC Grade C in one mathematics subject<sup>##</sup></b>  <b>AND</b>  <b>SPM Pass/O Level Grade E (Pass)/UEC Grade C in English Language<sup>**</sup></b></p>				<p>OR</p> <ul style="list-style-type: none"> <li>Diploma in Sport and Exercise Science</li> </ul>

	STPM	A Level	UEC	Other IHL	TAR UC
<b>Bachelor of Science (Honours) in Food Science</b>	Grade C in 2 relevant subjects which must include Chemistry	Grade D in 2 relevant subjects which must include Chemistry	Grade B in 5 relevant subjects which must include Chemistry	Relevant Foundation/ Diploma accredited by MQA	<ul style="list-style-type: none"> <li>Foundation in Science (Track A/ Track B)</li> </ul>
	<p><b>AND</b>  <b>SPM Pass/O Level Grade E (Pass) in Mathematics<sup>##</sup> /  UEC Grade C in one mathematics subject<sup>##</sup></b>  <b>AND</b>  <b>SPM Pass/O Level Grade E (Pass)/UEC Grade C in English Language<sup>**</sup></b></p>				<p>OR</p> <ul style="list-style-type: none"> <li>Diploma in Food Science</li> </ul>

<sup>\*\*</sup> Grade C and above in AELE0364 English Language conducted by TAR UC is accepted as having fulfilled the English Language requirement for applicants who fail English Language at SPM/O Level/UEC.

<sup>##</sup> Grade C and above in AMMS0104 General Mathematics conducted by TAR UC is accepted as having fulfilled the Mathematics requirement for applicants who fail the required Mathematics subject at SPM/O Level/UEC.

Note:

- Students without a credit in SPM Bahasa Melayu are required to pass Bahasa Kebangsaan A before the award of Bachelor Degree.
- TAR UC Diploma will be accepted on credit transfer into Bachelor Degree programmes.
- Equivalent qualifications/qualifications from other Institution of Higher Learning (IHL) will be considered on a case-by-case basis.
- Subject to the Ministry of Higher Education latest requirements.

# DIPLOMA ENTRY REQUIREMENTS

## Diploma in Science

[formerly known as Diploma in Science (Chemistry and Biology)]

### SPM

3 Credits in the relevant subjects

### O Level

3 Grade C in the relevant subjects

### UEC

3 Grade B in the relevant subjects

### Certificate

Relevant Certificate accredited by MQA

#### Compulsory subjects:

- (i) **SPM Credit/O Level** Grade C/**UEC** Grade B in Biology or Chemistry where minimum **SPM Pass/O Level** Grade E(Pass)/**UEC** Grade C in the other subject is required
- (ii) **SPM Pass /O Level** Grade E (Pass) in Mathematics<sup>##</sup> / **UEC** Grade C in Advanced Mathematics (I or II)<sup>##</sup>
- (ii) **SPM Pass/O Level** Grade E (Pass)/**UEC** Grade C in English Language<sup>\*\*</sup>

## Diploma in Sport and Exercise Science

### SPM

3 Credits in the relevant subjects

### O Level

3 Grade C in the relevant subjects

### UEC

3 Grade B in the relevant subjects

### Certificate

Relevant Certificate accredited by MQA

#### Compulsory subjects:

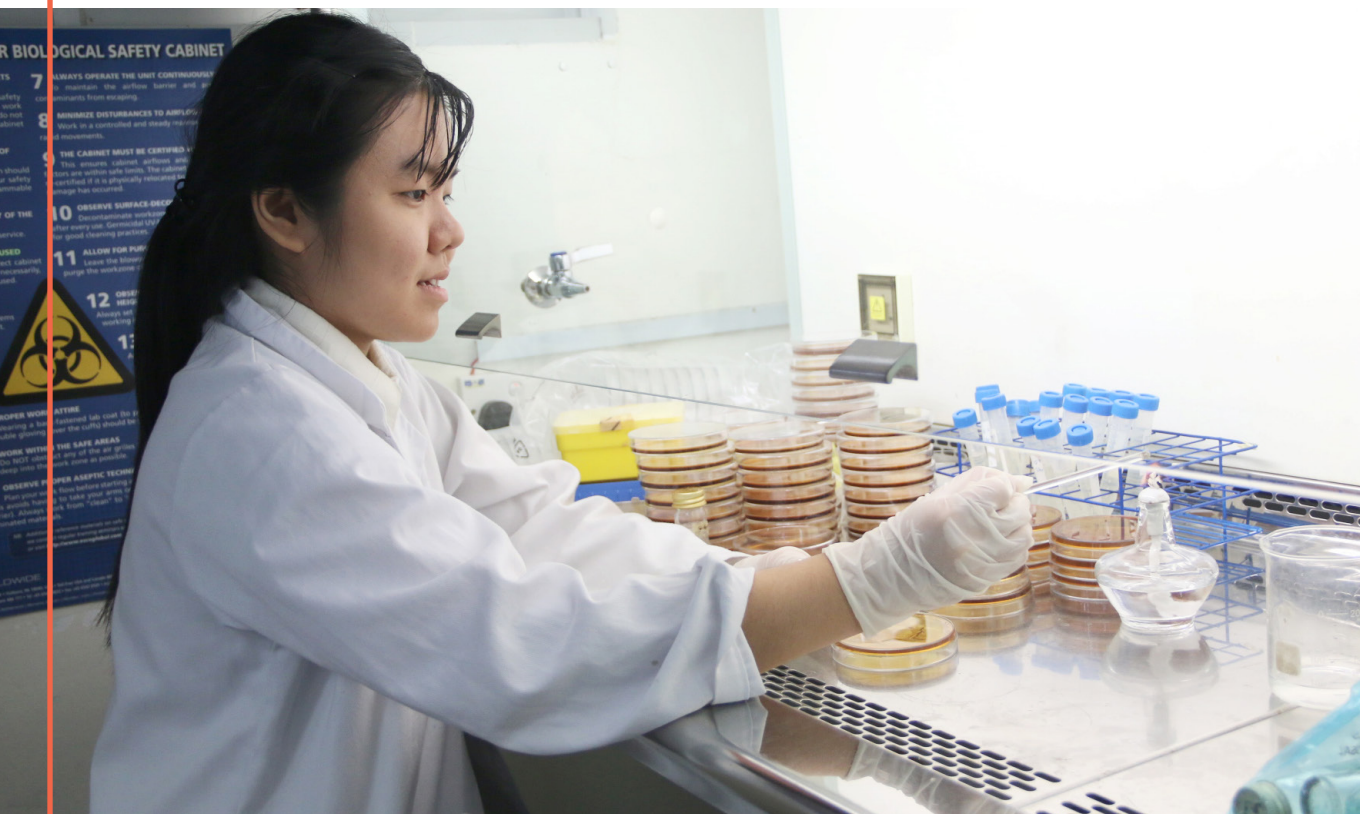
- (i) **SPM Pass/O Level** Grade E (Pass) in Mathematics<sup>##</sup> / **UEC** Grade C in one mathematics subject<sup>##</sup>
- (ii) **SPM Pass/O Level** Grade E (Pass)/**UEC** Grade C in one relevant science subject AND English Language<sup>\*\*</sup>

**\*\* Grade C and above in AELE0364 English Language conducted by TAR UC is accepted as having fulfilled the English Language requirement for applicants who fail English Language at SPM/O Level/UEC.**

**## Grade C and above in AMMS0104 General Mathematics conducted by TAR UC is accepted as having fulfilled the Mathematics requirement for applicants who fail the required Mathematics subject at SPM/O Level/UEC.**

#### Note:

- a) *SPM holders must have at least a pass in Bahasa Melayu and SPM holders from Year 2013 onwards must have at least a pass in Sejarah.*
- b) *Students without a credit in SPM Bahasa Melayu are required to pass Bahasa Kebangsaan A before the award of Diploma.*
- c) *Equivalent qualifications/qualifications from other Institution of Higher Learning (IHL) will be considered on a case-by-case basis.*
- d) *Subject to the Ministry of Higher Education latest requirements.*





# DIPLOMA ENTRY REQUIREMENTS

Diploma in Food Science	SPM	O Level	UEC	Certificate
	3 Credits in the relevant subjects	3 Grade C in the relevant subjects	3 Grade B in the relevant subjects	Relevant Certificate accredited by MQA
<b>Compulsory subjects:</b>				
(i) <b>SPM Credit/O Level</b> Grade C in Mathematics/ <b>UEC</b> Grade B in Advanced Mathematics (I or II)				
(ii) <b>SPM Credit/O Level</b> Grade C/ <b>UEC</b> Grade B in Chemistry				
(iii) <b>SPM Pass/O Level</b> Grade E (Pass)/ <b>UEC</b> Grade C in English Language**				

Diploma in Aquaculture	SPM	O Level	UEC	Certificate
	3 Credits in the relevant subjects	3 Grade C in the relevant subjects	3 Grade B in the relevant subjects	Relevant Certificate accredited by MQA
<b>Compulsory subjects:</b>				
<b>SPM Pass/O Level</b> Grade E (Pass)/ <b>UEC</b> Grade C in one relevant science subject <u>AND</u> English Language**				

\*\* Grade C and above in AELE0364 English Language conducted by TAR UC is accepted as having fulfilled the English Language requirement for applicants who fail English Language at SPM/O Level/UEC.

**Note:**

- SPM holders must have at least a pass in Bahasa Melayu and SPM holders from Year 2013 onwards must have at least a pass in Sejarah.
- Students without a credit in SPM Bahasa Melayu are required to pass Bahasa Kebangsaan A before the award of Diploma.
- Equivalent qualifications/qualifications from other Institution of Higher Learning (IHL) will be considered on a case-by-case basis.
- Subject to the Ministry of Higher Education latest requirements.



# FOUNDATION ENTRY REQUIREMENTS

BACHELOR DEGREE	FOUNDATION	ENTRY REQUIREMENTS		
		SPM	O LEVEL	UEC
Bachelor of Science (Honours) in Bioscience with Chemistry	Foundation in Science (Track B)	5 Credits in the relevant subjects which must include,	5 Grade C in the relevant subjects which must include,	3 Grade B in the relevant subjects which must include,
		<p><b>SPM Credit/O Level Grade C/UEC Grade B</b> in one mathematics subject and two relevant science subjects  <b>AND</b>  <b>SPM Pass/O Level Grade E (Pass)/UEC Grade C</b> in Biology, Chemistry and English Language</p>		
Bachelor of Science (Honours) in Sports and Exercise Science	Foundation in Science (Track B)	5 Credits in the relevant subjects which must include,	5 Grade C in the relevant subjects which must include,	3 Grade B in the relevant subjects which must include,
Bachelor of Science (Honours) in Food Science				
Bachelor of Science (Honours) in Analytical Chemistry	Foundation in Science (Track A)	5 Credits in the relevant subjects which must include,	5 Grade C in the relevant subjects which must include,	3 Grade B in the relevant subjects which must include,
	Foundation in Science (Track A)	5 Credits in the relevant subjects which must include,	5 Grade C in the relevant subjects which must include,	3 Grade B in the relevant subjects which must include,
		<p><b>SPM Credit/O Level Grade C/UEC Grade B</b> in one mathematics subject and two relevant science subjects  <b>AND</b>  <b>SPM Pass/O Level Grade E (Pass)/UEC Grade C</b> in Physics, Chemistry and English Language</p>		
Bachelor of Science (Honours) in Applied Physics (Instrumentation)	Foundation in Science (Track A)	5 Credits in the relevant subjects which must include,	5 Grade C in the relevant subjects which must include,	3 Grade B in the relevant subjects which must include,
		<p><b>SPM Credit/O Level Grade C/UEC Grade B</b> in one mathematics subject and two science subjects  <b>AND</b>  <b>SPM Pass/O Level Grade E (Pass)/UEC Grade C</b> in Physics, Chemistry and English Language</p>		

**Note:**

- a) SPM holders must have at least a pass in Bahasa Melayu and SPM holders from Year 2013 onwards must have at least a pass in Sejarah.
- b) Equivalent qualifications other than the above will be considered on a case-by-case basis.
- c) Subject to the Ministry of Higher Education latest requirements.

# STUDENT ACHIEVEMENTS



## Mulberry Leaf Extract Fortification and Probiotic Fermentation to Improve Bioactivity of Cheese

Chew Hwei Chin



**ABSTRACT**

This study was conducted to enrich the bioactive property of cheese by incorporating mulberry leaf extract (MLE) and applying probiotic fermentation. The MLE was produced via ultrasound-assisted water extraction (UW), pectinase-pretreated ultrasound-assisted water extraction (PUW) and cellulase-pretreated ultrasound-assisted water extraction (CUW). The MLE with the highest DPPH, FRAP,  $\alpha$ -amylase inhibition (AI) and albumin denaturation inhibition (ADI) activities was selected to incorporate into the cheese. The cheese was then fermented with probiotic *Lactobacillus plantarum* TAR4. Results obtained indicate that MLE produced via UW and PUW had the best bioactivities. Total phenolics, flavonoids, DPPH, FRAP, AI and ADI activities of cheeses were significantly enhanced with the fortification of MLE. Probiotic fermentation further enhanced the DPPH, FRAP, AI and ADI activities of cheeses. In-vitro digestion had proven did not diminish the bioactivities exhibited by the cheeses. Combined MLE fortification and probiotic fermentation was proven as an effective strategy to improve bioactivities of cheese.



### 12<sup>th</sup> MIFT National Food Science & Technology Competition

**Award announcement**

Category:  
Postgraduate Poster Presentation  
**Food Science Category**

1<sup>st</sup> runner up:  
**Chew Hwei Chin**  
Institution: **TARUC**

Title: **Mulberry leaves extract fortification and probiotic fermentation to improve bioactivity of cottage cheese**



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**Gold sponsors:**  
 

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Chew Hwei Chin, a Master of Science (Food Science) student won 1<sup>st</sup> runner up in Postgraduate poster presentation (Food Science track) in 12<sup>th</sup> MIFT National Food Science and Technology competition organised by Malaysian Institute of Food Technology (MIFT) and hosted by TAR UC.







**Waste to Wealth**

**OBJECTIVE:** To investigate the antioxidant potential of banana peel and skin.

**METHODS:** Wash, Peel, Vacuum dry, Grind, Phenolics & antioxidant analysis, Ultrasound-assisted extraction (UAE), UAC (100°C, 15 min)

**ACNOWLEDGMENT:** This research project (project number: UIC210200) is funded by TAR UC Internal grant under Tunika Abidin Sultan transitory College.

**REFERENCES:** 1. Ezzamel, A.; Faria, A.M.; Bernal, C.M.G.; Wicker, L. G. Compost, Activated Carbon, and Adsorption for Purification of Food Oils and Oil Contaminants. In *Food Oils and Oil Contaminants*; Springer: Dordrecht, 2015; pp. 117-132. 2. Ezzamel, A.; Faria, A.M.; Bernal, C.M.G.; Wicker, L. G. Compost, Activated Carbon, and Adsorption for Purification of Food Oils and Oil Contaminants. In *Food Oils and Oil Contaminants*; Springer: Dordrecht, 2015; pp. 117-132. 3. Ezzamel, A.; Faria, A.M.; Bernal, C.M.G.; Wicker, L. G. Compost, Activated Carbon, and Adsorption for Purification of Food Oils and Oil Contaminants. In *Food Oils and Oil Contaminants*; Springer: Dordrecht, 2015; pp. 117-132. 4. Ezzamel, A.; Faria, A.M.; Bernal, C.M.G.; Wicker, L. G. Compost, Activated Carbon, and Adsorption for Purification of Food Oils and Oil Contaminants. In *Food Oils and Oil Contaminants*; Springer: Dordrecht, 2015; pp. 117-132.

Chuah Hui Qian, a Master of Science (Food Science) student won consolation prize of the Young Investigator Award in the YSN-ASM International Scientific Virtual Conference 2021, organised by Young Scientist Network Malaysian (YSN) and Akademi Sains Malaysia (ASM).



# STUDENT ACHIEVEMENTS



TAR UC Bachelor of Science (Hons) in Bioscience with Chemistry students won 1<sup>st</sup> prize in the Sustainability Video Award 2020 competition organised by Waste Management Association of Malaysia ('WMAM') with the theme, 'Resource Conservation'. (From left to right): Ho Zhi Wei, Jerome Liew, Wallace Chee Yong Chun.



TAR UC postgraduate and undergraduate students were awarded 4 gold awards and 5 silver awards in the Final Year Project & Postgraduate Competition 2020 ('FYPPPC') organised by MNNF Network.

# STUDENT ACHIEVEMENTS



TAR UC teams were awarded second prize and 2 consolation prizes in the WORLDWIDE WMAM-ISWA SUSTAINABILITY VIDEO AWARD 2019 Competition with the theme, 'Plastics : The Good, The Bad & The Ugly'.



**MASISWA BADMINTON CHAMPIONSHIP & PRESIDENT CUP 2019**  
TAR UC teams were awarded 2<sup>nd</sup> Runner-up and 4<sup>th</sup> placing.

# STUDENT ACTIVITIES



China Educational Tour 2019 - Tianjin University of Sport.



Co-organised the 9<sup>th</sup> Malaysia Weiqi Open Championship 2019 with the Malaysia Weiqi Association (MWA).



### Bursary for State/National Players

Bursary for State/National Players is open to students who are pursuing the **Sports and Exercise Science** programme.



- The value of the Bursary is as follows:-  
National player : **50%** waiver tuition fee  
State player : **25%** waiver tuition fee
- The Bursary is for one semester only (i.e. 1st Semester)

# MERIT SCHOLARSHIP

Automatically offered upon admission

## Diploma/Foundation Programmes

Entry Qualification	Criteria	Waiver of Tuition Fee
SPM O Level	Minimum 8A+/A Minimum 8As	<b>100%</b>
SPM O Level	8As* 7As	<b>50%</b>
SPM O Level	7As* 6As	<b>25%</b>
SPM	6As*	<b>20%</b> Foundation programmes only
SPM	5As*	<b>15%</b> Foundation programmes only

\*SPM As : A+/A/A-

## Bachelor Degree Programmes

Entry Qualification	Criteria	Waiver of Tuition Fee
STPM / A Level	3As	<b>100%</b>
Unified Examination Certificate (UEC)	8As	
*TAR UC Diploma / *TAR UC Foundation / Matriculation	CGPA $\geq$ 3.8500	
South Australian Matriculation (SAM)/ Western Australian Certificate of Education (WACE)/ Higher School Certificate (HSC)	$\geq$ ATAR 95	
Canadian Pre-University (CPU)	$\geq$ 95%**	
STPM / A Level	2As	<b>50%</b>
Unified Examination Certificate (UEC)	7As	
*TAR UC Diploma / *TAR UC Foundation / Matriculation	CGPA $\geq$ 3.7500	
South Australian Matriculation (SAM)/ Western Australian Certificate of Education (WACE)/ Higher School Certificate (HSC)	$\geq$ ATAR 90	
Canadian Pre-University (CPU)	$\geq$ 90%**	
Unified Examination Certificate (UEC)	6As	<b>25%</b>
Unified Examination Certificate (UEC)	5As	<b>20%</b>

Including A-

\*Must have obtained straight passes in all courses (including co-curriculum courses for diploma)

\*\*For all subjects with a minimum of 6 subjects

Only applicable for full-time programmes.  
Terms & Conditions apply.

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